

Report on Three *Calamus* Species (Arecaceae) New to Kerala, India

V.V. Rangan, V.B. Sreekumar, C. Renuka and P.K. Padmakumar¹

Kerala Forest Research Institute, Peechi, Thrissur 680 653, Kerala, India.

¹ SVRNSS College, T.P.Puram PO, Vazhoor, Kerala, India.

Abstract

Calamus karnatakensis Renuka & Lakshmana, *Calamus lakshmanae* Renuka and *Calamus lacciferus* Lakshmana & Renuka described earlier from Karnataka are reported from the forests of Kerala. Extended distribution of these three taxa enhances total *Calamus* species occurring in Kerala from 15 to 18 in number.

Key words: Three *Calamus* species, Karnataka, Extended distribution, Kerala

Introduction

Kerala Forests harboured fifteen species of *Calamus* (Renuka, 2000; Anto *et al.*, 2001). Recently the authors located three more species viz.: *Calamus karnatakensis* Renuka & Lakshmana, *Calamus lakshmanae* Renuka and *Calamus lacciferus* Lakshmana & Renuka as occurring in the forests of Kerala. This paper provides short descriptions and other details of these species.

Calamus karnatakensis Renuka & Lakshmana, RIC Bull. 9: 10.1990; Renuka, Rat. Western Ghats 33. Pl.13.1992; Lakshmana, Rat. South India 46. 1993. Fig. 1a.

High climbing, clustering rattan. Stem 35 m or more long, upto 3 cm (with sheath) and upto 2 cm (without sheath) in diameter. Leaves ecirrate, 1.5 m long; leaf sheath brown tomentose when young, yellow when mature, densely armed with spines, spines 2-2.5 cm long, often forming half spiral, pointing upwards, spines at mouth of the sheath upto 4 cm long; knee conspicuous, wrinkled, yellowish; ocrea upto 6 cm long, with short spines; petiole upto 30 cm long, armed with brown spines, spines upto 1 cm long; rachis upto 1.8 cm wide, lateral side of the rachis with longer spines, spines upto 3 cm long, spines on ventral side 1 cm long, pointing upwards; leaflets regular, 50 x 2.5 cm, 3-veined, veins and margins spinulose, terminal pair basely united. Inflorescence long, flagellate; partial inflorescences many, primary and secondary sheath compact when young; split when mature, often becoming laminar, secondary sheaths

funnel shaped, spinulose; rachillae upto 15 cm long, involucrophorum sessile, arising from within the sheath, involucre cupular and sessile. Fruits globose, 8 mm across, scales in 19 rows, straw yellow with chesnut-brown margins, pale violet when ripe; endosperm not ruminant.

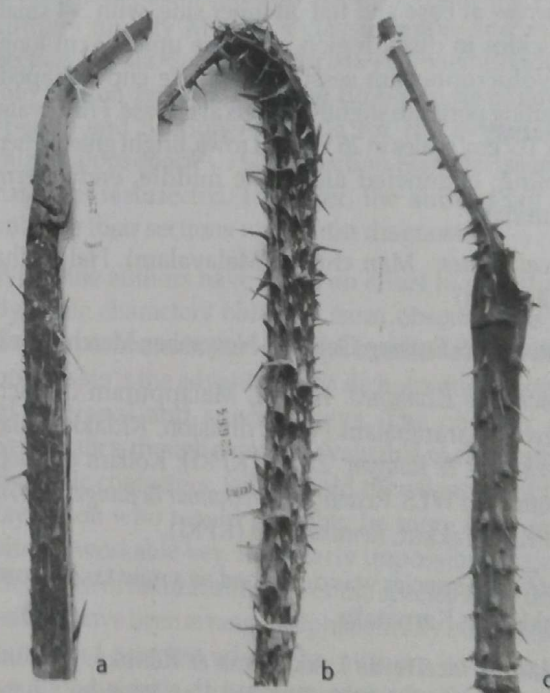


Figure 1. Leaf sheaths: a. *Calamus karnatakensis*; b. *C. lakshmanae*; c. *C. lacciferus*

Flowering & Fruiting: October-November; April-May.

Local Names: Kannikkodi (Malayalam), Sukkubeth (Kannada)

Specimens Examined: Kerala, Malappuram district: New Amarambalam Forest Division, Kidakkamala, Sreekumar & Rangan 22666 (KFRI). Karnataka: Kargal, Renuka 4068, 4069 (KFRI), Agumbe, Renuka 4076 (KFRI), Thalakkaveri, Renuka 4088 (KFRI).

Note: This species was originally described from Agumbe and Thalakkaveri in Karnataka.

Calamus lakshmanae Renuka, J. Econ. Tax. Bot., 14: 701.1990; Renuka, Rat. Western Ghats 37. pl. 15. 1992; Lakshmana, Rat. South India 48. 1993. **Fig. 1b.**

Clustering, high climbing rattan. Stem 2-2.5 cm (with sheath) and 1 cm (without sheath) in diameter. Leaves ecirrate, 1.65 m long; leaf sheath yellowish green to green, densely armed with yellowish bulbous based spines, spines upto 1 cm long, pointing horizontally or upwards; distal younger sheath with lesser spines and with brown markings; knee present; petiole 20 cm long, armed with small curved spines; leaflets regular, linear-lanceolate, tip not ciliate, 45 x 2 cm, terminal leaflets 20 x 1 cm, 3 veined, lateral veins ciliated on dorsal surface, midvein ciliated on ventral surface, margin spinulose. Inflorescence long, pendulous; primary sheath tightly sheathing with short spines; partial inflorescence to 60 cm long, attached above the mouth of the sheath; secondary sheath tubular - infundibuliform, tightly sheathing, upto 4 cm long, narrow at base and flat on inner side, with 3-4 small prickles in distal region, rachillae upto 12 cm long; involucrophorum sessile; involucre cup - shaped; fruiting perianth slightly callous at its base. Fruit ovate, 1 x 0.7 cm, scales in 26 vertical rows, bright green when young; channeled along the middle, endosperm ruminant.

Local names: Man churel (Malayalam), Halubetha (Kannada)

Flowering & Fruiting: October - November; March - April.

Specimens Examined: Kerala, Malappuram district: New Amarambalam Forest division, Kidakkamala, Sreekumar & Rangan 22664 (KFRI); Kollam district: Shendurni WLS, Rosemala: Sreekumar & Rangan 22470 (KFRI), Makkut, Renuka 4086 (KFRI).

Note: This species was described as a new taxon from Makkut in Karnataka.

Calamus lacciferus Lakshmana & Renuka, J. Econ. Tax. Bot., 14: 705.1990; Renuka, Rat. Western Ghats 35. pl. 14. 1992; Lakshmana, Rat. South India 47. 1993.

Fig. 1c.

High climbing, cluster forming rattan. Stem thin 0.5-0.8 cm in diameter at base, getting thicker upwards, 4 cm (with sheath) and upto 1.5 cm (without sheath) in diameter distally, basal nodes producing new shoots. Leaves ecirrate, to 2-2.5 m long; sheath green basely and grayish green distally, sparingly spiny, bulbous based spines 0.5-1 cm long; knee conspicuous, devoid of spines; petiole 30-40 cm long, armed with short spines, rachis with recurved spines beneath, exuding milky latex when cut; leaflets regular, linear lanceolate, 60 x 3 cm, tip ciliate, terminal leaflets 20 x 1.2 cm, slightly united at base, mid vein ciliated dorsally, lateral veins ciliated ventrally on the upper half. Inflorescence long, flagellate; primary sheath tubular, tightly sheathing, spiny; partial inflorescence upto 15 cm long, secondary sheaths tubular, inflated at mouth; rachillae upto 5-6 cm long, arched and recurved, upper ones gradually becoming shorter to 1 cm long, involucrophorum stalked; involucre disc shaped; fruiting perianth pedicellate. Fruits rounded, 2cm in diameter; scales in 19 vertical rows, yellow with brown boarder, shiny, deeply channeled in the middle; endosperm ruminant.

Local names: Pal chural (Malayalam), Neerubetha (Kannada)

Flowering & Fruiting: November-December; May-June

Specimens Examined: Kerala, Malappuram district: New Amarambalam Forest division, Kidakkamala, Sreekumar & Rangan 22665 (KFRI); Karnataka: Kenganahonda, Renuka 4078 (KFRI), Agumbe, Renuka 4096 (KFRI).

Note: This species was described for the first time from Karnataka.

Acknowledgements

We are grateful to Dr. J.K.Sharma, Director, KFRI, for providing facilities. Kerala Forest Department (Development) provided financial assistance.

Literature Cited

- Anto, P. V., Renuka, C. & V. B. Sreekumar 2001. *Calamus shendurunii*, a new species of Arecaceae from Kerala, India. *Rheedea* 11(1): 37-39.
Renuka, C. 2000. *Field identification key for rattans of Kerala*. Kerala Forest Research Institute, Peechi, Kerala.

Received 19.3.2003